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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,567	11/20/2001	Roger C. Williams	BIWLOWF	6838
45498	7590	06/03/2005	EXAMINER	
RISTO A. RINNE, JR. COMPLETE PATENTING SERVICES 2173 EAST FRANCISCO BOULEVARD, SUITE E SAN RAFAEL, CA 94901			HARVEY, JAMES R	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,567

Applicant(s)

WILLIAMS, ROGER C.

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 5-27-05
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

- Claim(s) 3, 13 and 14 are objected to because of the following informalities:
 - In reference to Claim(s) 3 (lines 7-9), the recitation “a socket contact that includes a first inner diameter *and is* disposed at the socket contact at one end thereof” is confusing. The recitation seems to be claiming --a socket contact ... disposed at the socket contact-- or the recitation could be claiming --a socket contact having a first inner diameter disposed at one end thereof--. For purposes of examination, it is assumed that the language is intended to mean the latter. An examination based on the merits, as best understood, is addressed below.
 - In reference to Claim(s) 13, the recitation “a second end” (line(s) 5) is not defined in the specification nor assigned an element number in the drawings to make the public aware of the meets and bounds of applicants claimed invention. For purposes of examination, it is assumed that the language is intended to mean a gap. An examination based on the merits, as best understood, is addressed below.
 - In reference to Claim(s) 14, the recitations “distal end “ (line 8) not defined in the existing claim or the claim from which it depends nor assigned an element number in the drawings to make the public aware of the meets and bounds of applicants claimed invention. For purposes of examination, it is assumed that the language is intended to mean “a curved portion”. An examination based on the merits, as best understood, is addressed below.
 - Appropriate correction of the above is required.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

** Claim(s) 1-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Frommer et al. (5599213).

-- In reference to Claim(s) 1, Frommer shows (cover sheet) a low force electrical contact 20 of the type in which a socket 24 is provided that includes a plurality of tines 22, each the plurality of tines adapted to extend radially away from center, wherein the improvement has:

a patch 2 proximate a tip included with each the plurality of tines, the patch having a thickness that is greater than an adjoining undercut portion (near the lead line of numeral 30 (figure 4)) and

wherein the plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of the pin and a center longitudinal axis of the plurality of tines.

In particular reference to the newly amended recitation that is underlined above, it is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the

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claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 2, Frommer shows (cover sheet) forming at least a portion of each of the plurality of tines from an electrically conductive material and including with each of the plurality of tines a portion proximate a tip, the portion having a thickness that is greater than an adjoining undercut portion and

wherein the plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of the pin and a center longitudinal axis of the plurality of tines.

In particular reference to the newly amended recitation that is underlined above, it is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 3, Frommer shows (see examiner's figure) providing at each of the plurality of tines 22 first stage proximate a socket contact 24 having a first inner diameter disposed at one end thereof and which extends therefrom a distal end and where a second stage is

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attached and includes a second inner diameter at the one end thereof that is greater than the first inner diameter and wherein each of the plurality tines includes a patch proximate a tip, the patch having thickness that is greater than an adjoining undercut portion and

wherein the plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of the pin and a center longitudinal axis of the plurality of tines.

In particular reference to the newly amended recitation that is underlined above, it is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

The meaning of "socket contact" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference a socket for holding a contact.

-- In reference to Claim(s) 4, Frommer shows (cover sheet)

a socket 20;

a plurality of tines 22 disposed in the socket;

the plurality of tines 22 adapted to receive a pin in the socket wherein the pin includes a first center longitudinal axis that is not in parallel alignment with a second center longitudinal axis of the socket, and

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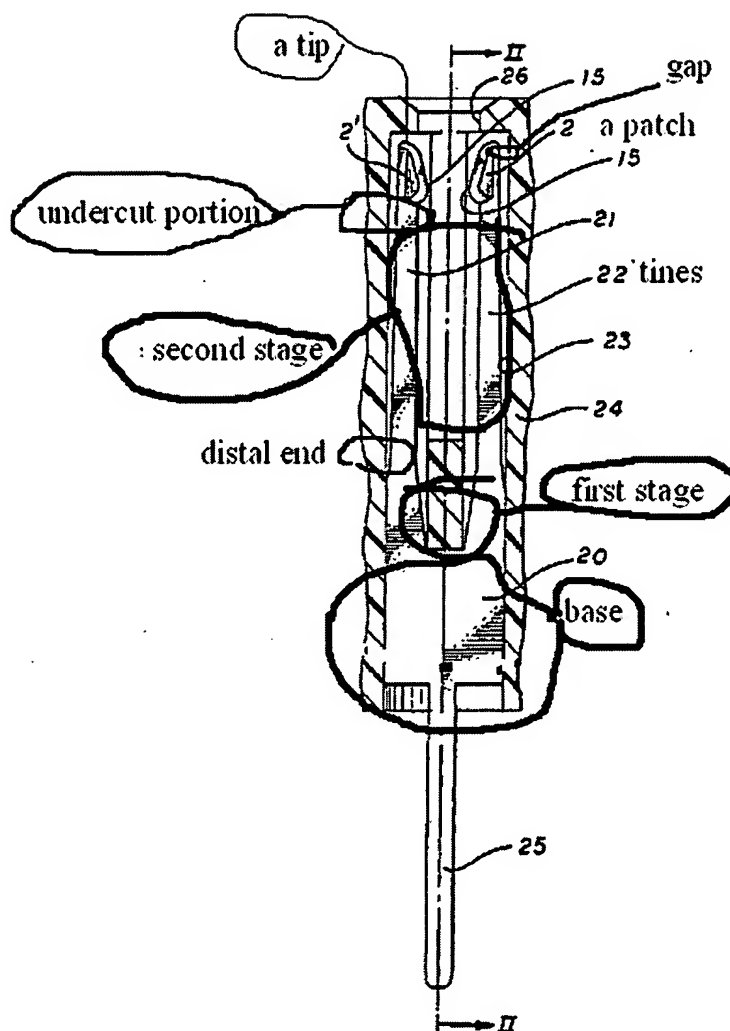
means 25 for electrically connecting a wire to the socket 20 and

wherein the plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of the pin and a center longitudinal axis of the plurality of tines.

In particular reference to the newly amended recitation that is underlined above, it is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 5, Frommer shows (see examiner's figure) each of the tines 22 includes a first stage and a second stage, the first stage having a first wall thickness that is thicker than a second wall thickness of the second stage that is disposed proximate to the first stage and which extends therefrom toward a tip of each tine.

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-- In reference to Claim(s) 6, Frommer shows an undercut portion (see examiner's figure) in each of the tines a predetermined distance from the tip.

-- In reference to Claim(s) 7, Frommer shows (see examiner's figure) the undercut portion extends to the first stage.

-- In reference to Claim(s) 8, Frommer shows (see examiner's figure) each of the tines includes a patch of material that is adapted to contact a pin, the patch being disposed intermediate the tip and the undercut portion.

-- In reference to Claim(s) 9, Frommer shows (see examiner's figure) the patch of material includes a greater thickness of material than the undercut portion.

-- In reference to Claim(s) 10, Frommer shows a diametrically opposed pair of the patches of material includes at least two of the patches of the tines define an inside diameter that is less than an inside diameter of the undercut portion.

The meaning of "diametrically opposed" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing two patches that are separated by a diameter and if a pin of the diameter was placed between them, they would create opposing forces that press the patch into physical contact with the pin.

-- In reference to Claim(s) 11, Frommer shows (cover sheet) each of the plurality of tines is adapted to extend radially away from a center longitudinal axis.

-- In reference to Claim(s) 12, Frommer shows (cover sheet) each of the plurality of tines is adapted to make contact with the pin along a portion of the longitudinal length of each of the plurality of tines proximate a tip of each of the tines when the pin is inserted into the socket.

-- In reference to Claim(s) 13, Frommer shows each of the plurality of tines 22 is machined wherein a tip (see examiner's figure) of each of the plurality of tines is normally disposed closer a center of the socket when the socket is not mated with a pin than second end (near the undercut portion detailed in the examiner's figure) of each the plurality of tines that disposed distally from the tip.

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-- In reference to Claim(s) 14, Frommer shows (see examiner's figure) each of the plurality of tines have curved portions (at the patch shown in the examiner's figure)).

-- In reference to Claim(s) 16, Frommer shows (cover sheet) the chamfer near the lead line of numeral 26 is adapted to accommodate an angular misalignment of a first center longitudinal axis of the pin with respect to a second center longitudinal axis of the socket.

-- In reference to the recitation "adapted to" Frommer shows the claimed structure and is "adapted to" perform the same intended use.

Claim Rejections - 35 USC § 103

• The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

** Claim(s) 17 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Frommer et al..

-- In reference to Claim(s) 17, Frommer shows substantially the invention as claimed.

However, Frommer does not show the angular misalignment is equal to or less than three degrees in magnitude.

The three degree angle is seen to be a function of the chamfer angle (near the lead line of numeral 26 (cover sheet) of Frommer and the thickness of the wall of the hood 24 of Frommer.

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Further, the particular dimensions of the three degrees, to the extent that Frommer does not specify exact dimensions, at the time of the invention, workable dimensions of the three degrees would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977). Variations in the distance would have been obvious minor adjustments without patentable significance. See In re Aller, 105 USPQ 233 (CCPA 1955)(Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

One skilled in the art would be motivated to experiment with the wall thickness and chamfer of Frommer to the three degree angle in order to prevent scratching off the precious metal (i.e. gold) plating on contacts associated with air bags and brakes on automobiles.

Response to Applicant's Remarks

-- In response to applicant's assertion (page 11, lines 15-17) that the invention of Frommer would fail to provide contact if such a misalignment were to occur, the examiner disagrees. The examiner disagrees because the language from which applicant's argument is based is seen to be for the intended use of the socket and contact arrangement.

It has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

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-- In response to applicant's assertion (page 12, line 2) concerning the misalignment were to occur in and out of the page, this assertion is seen to be more a function related to applicant's insulated tip 12 which is not claimed. Therefore, the examiner is not convinced.

-- In response to applicant's assertion (page 13, line 16) the Frommer can not accommodate axial misalignment, the examiner is not convinced that the intended use of applicant's contact for misalignment makes the claims allowed. Please see the reference to Ex parte Masham above.

Allowable Subject Matter

- Claim(s) 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show a gap between a hood that is substantially identical along the longitudinal length of the plurality of tines in combination with all the other elements of the claim and the examiner knows of no permissible motivation to combine the prior art such that the subject matter as a whole would have been obvious at the time the invention was made.

Conclusion

- The prior art of Sapienza et al. (3596234) is listed on PTO form 892 and is considered pertinent to applicant's disclosure because it shows the undercut portion extends between the patch and an inner shoulder. The inner shoulder extends away from the center and an outer shoulder is adjacent to and extending parallel to the inner shoulder.

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- Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

James R. Harvey, Examiner

Jrh
May 31, 2005



RENEE LUEBKE
PRIMARY EXAMINER